Apalachicola River and Bay Watershed Explorations

Apalachicola National Estuarine Research Reserve

Ancient Answers Fourth Grade

Apalachicola National Estuarine Research Reserve
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June 2004

ACKNOWLEDGEMENTS

Apalachicola River and Bay Watershed Explorations is a cooperative project between the Friends of the Reserve, Inc. and the Apalachicola National Estuarine Research Reserve. Financial support for this publication was provided by the Florida Department of Environmental Protection and a grant under the Federal Coastal Zone Management Act, administered by the Office of Ocean and Coastal Resource Management, National Oceanic and Atmospheric Administration, Silver Spring, MD.

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We appreciate the assistance of several Franklin and Gulf County, Florida teachers in planning this curriculum. Their input and feedback was an integral part of the design process.
Thank you to:
JoAnn Ardire, Polly Edmiston, Fay Henderson, Teresa Howard, Andrea Keuchel, Diane McGrath, LeeAnne Poloronis, Pam Schaffer, Gina Taranto, and Carol Weyrich

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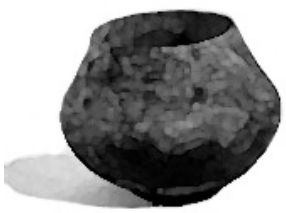


Ancient Answers

Concept

Students will learn about different cultures of the Apalachicola River watershed through reading and interpretation of actual artifacts.

Objectives

1. Students will be able to identify at least 3 types of artifacts used by native people or early settlers in the Apalachicola watershed.
2. Students will be able to identify at least 3 different uses of the natural resources of the Apalachicola watershed by early people.
3. Students will understand the importance of data entry and record keeping for scientific research.
4. Students will understand that archeologists use a scientific approach to investigating Florida's history.

Method

Students will identify, classify, and interpret artifacts based on information they read about the lives of past inhabitants of the Apalachicola River watershed.

Grade level: 4th Grade
Subjects: Science, Social Studies, and Language Arts
Location: This activity can be done inside.
Materials: Old magazines for assessment section and materials in the module
Duration: Two class periods
Sunshine State Standards: Listed on p. 7 of the activity

Preparation Activities:

The students will read about early use of the Apalachicola River watershed, including the river system and the estuary. This will give students a background on the peoples and the cultures of early Florida.

The module contains a set of archaeology tools. To familiarize students with the tools and processes of archeology, show the tools to the students (one at a time) and ask them to guess what the tools might be used for. The descriptions that accompany the tools will help you explain each item to your students. You may also show a video about archaeology.

Teachers may also consider doing a "classification and attributes" activity, such as the one listed in the resources section. This kind of activity will get students to understand what it means to classify things into categories, which is a key archeology technique.

Getting Ready:

1. Photocopy a data sheet and artifact catalog sheet for each team.
2. Check the Archaeology Research Boxes to be sure each box includes the proper artifacts and "artifact scenario." There is a teacher's checklist to help you make sure that each box has the proper contents.
3. Display the archeology poster in the classroom.

Activity:

Students will learn about how archaeologists work and how archeologists classify and interpret artifacts. The students will each conduct a "dig" at a prepared "dig site." Although no actual digging will occur, students will record data, classify information, and catalog the artifacts similar to how an archaeologist would.

1. Divide students into several (up to 6) groups and give each group an Archeology Research Box. Each box is representative of a specific time period and all artifacts in that box correspond to a certain group of people from that time period. Ask students to imagine that they are part of an archaeological team that has discovered a variety of artifacts. Their job as scientists is to learn about the people who lived in the Apalachicola River watershed from the bits and pieces of their lives that have been pulled from the ground.
2. Students should read the "artifact scenario" in their box to find out where and how the artifacts were found.
3. The tags on the artifacts will include some information required for the artifact catalog (such as date, location, etc.), but students may need to figure out who the people were that used the artifacts and what they were used for. As students discover or deduce information about the artifacts via their research, the information should be recorded in the artifact catalog.
4. After the artifact catalog has been filled in, the students can then answer the questions on the data sheet. Have each group discuss what the lives of the people who used the artifacts must have been like and have them record their thoughts on the data sheets. The data sheet and artifact catalog should be filled out completely by each student in the team for later assessment.

Follow-up:

Each group will share what they learned at their "dig site" with other classmates. Students should be able to report on the following points:

1. The basic descriptions of each artifact in the box, including the material, the size, and the condition of the artifact.
2. The time period of the artifacts.
3. The people who used the artifacts.
4. What life was like for the people who used the artifacts.

At the end of the class period, the teacher will facilitate a group discussion about what life was like during prehistoric and various

historic periods in the Apalachicola River watershed.

Assessment:

Team Assessment: Each team will give a presentation about the artifacts in their box. This will be an informal presentation using the notes from their data sheet and artifact catalog. The teacher may also ask the students to prepare a more detailed presentation, or to develop and perform a skit that depicts the life of the people they researched.

Individual Assessment: Students will create a collage depicting the life of the people that were represented by the artifacts in their box. Students can draw pictures and/or collect pictures from magazines or websites to create the collage.

Post Activities:

Students can research and write an essay about one of these groups and how they influenced Florida's culture as it is today:

1. Prehistoric Native Americans
2. Native Americans (1500s - 1700s, several groups)
3. European Settlers (Spanish, French, and British colonials)
4. African-American slave or free populations
5. Contemporary cultures (20th Century Americans)
6. Other groups (e.g., Hispanic, Caribbean, Brazilian, Cajun, or other cultures)

Resources:

- *Florida History: From the Stone Age to the Space Age*, FloridaKIDS, Florida Division of Historical Resources, http://www.flheritage.com/kids/history.cfm
- *Florida Facts and History*, Florida Division of Historical Resources http://dhr.dos.state.fl.us/flafacts/index.html
- *Archeology: Touching the Past* and *What do Archaeologists do?* 2004 Florida Archeology Posters, http://www.flheritage.com/archmonth/2004/FAM2004_poster.pdf
- *Classification and Attributes (Archeology) Lesson Plan*, Learn NC http://www.learnnc.org/learnnc/lessonp.nsf/0/4E4A0122354D98C28525679B00625293?OpenDocument
- The Florida Museum of Natural History, http://www.flmnh.ufl.edu/
- *The Archaeology Education Handbook: Sharing the Past with Kids*, K. Smardz and S. Smith, Eds. 2000. AltaMira Press, Walnut Creek, CA.
  This text explains the basics of archaeology education for grades K-12.
- *River Song: A Journey Down The Chattahoochee and Apalachicola Rivers*, Joe and Monica Cook. 2000. University of Alabama Press.
  A photographic record of the Cook's source-to-sea river adventure, this book won an Award of Merit in Book Design from the Southeastern Library Association.
- *Archaeologists Dig for Clues,* Kate Duke, 1997, HarperCollins Publishers, Inc., New York
- *Fossils Tell of Long Ago,* Aliki, 1990, HarperCollins Publishers, Inc., New York

Background Reading For: Ancient Answers

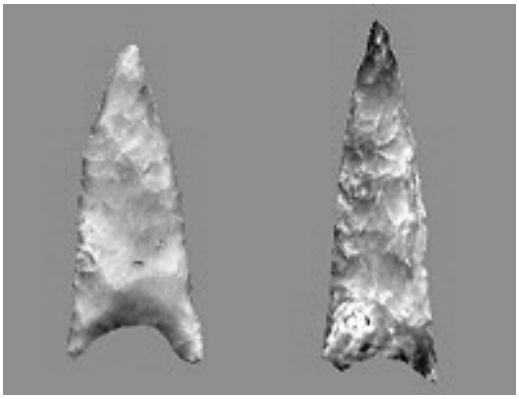
[Adapted from the *Teachers' Guide to Florida's Native People* created by the Florida Museum of Natural History, 2002. The full guide is available at http://www.flmnh.ufl.edu/education/resources.html]

Archaeology is the scientific study of the remains of past human **cultures**. It is the primary method of learning about **cultures** and civilizations that existed before written records. Even after writing was invented (5,500 BCE), and in places where writing was never used, archaeology helps to further understand past cultures. Archaeologists study the remains of buildings, artwork, tools, pottery, and even garbage. They try to understand how objects and other aspects of archaeological sites relate to each other to determine how people lived.

Archaeologists study three basic types of archaeological evidence: 1) artifacts, 2) features, and 3) ecofacts. Artifacts are human-made objects: stone tools, pots, pyramids, etc. Features are evidence of past human activities: postholes, fireplaces, irrigation ditches, tombs, etc. Ecofacts are naturally occurring objects that are not changed in character by humans. Examples are plant seeds and animal bones. Seeds and bones from ancient garbage help identify what people ate. Seeds and pollen help to determine the type of vegetation that existed during a time period and also any subsequent climate changes.

Archaeologists get their information through **excavation**. Archaeologists always have a reason to dig a site. Two common reasons are 1) that a site is in danger of being destroyed by construction or from other causes and 2) that a site has potential to answer some important questions about human history. Once a site is selected, archaeologists survey and map the site. The next step is to **excavate** the site. And last, they **catalog** and preserve the evidence that they discovered.

The main job of archaeologists is to keep a record of their findings. They must describe, photograph, and count all objects that are found and pinpoint where they were found on a map. They also record any changes in soil colors or textures. Without this type of information, the evidence cannot be properly **interpreted.** People who dig up **artifacts** without properly documenting their work destroy a site and the history of its inhabitants forever.



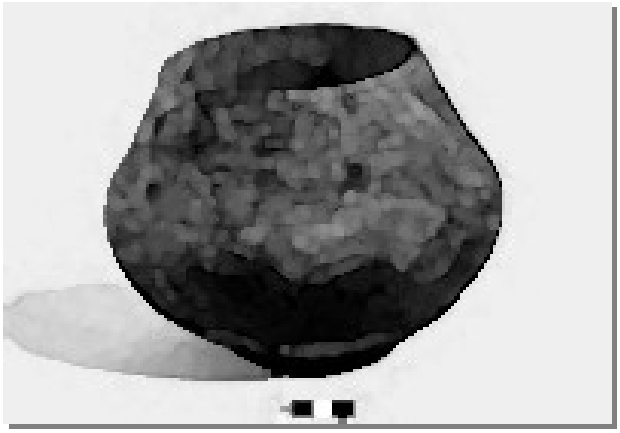
North Florida arrowheads

Background Reading Continued: Ancient Answers

Archaeologists **interpret** their findings by a three-step process. They must classify, date, and evaluate the discovered evidence.

1. **Classification** is the process of sorting objects according to size, types, and placement. **Classification** helps the archaeologist to establish patterns. This may indicate if objects were used during a certain period of time or used in certain functions.
2. The second step is the dating of evidence. Objects are dated either in relation to other objects found at the site or they are dated in years.
3. Evaluation of **artifacts** and features helps determine how objects were made, where they were made, and how they were used in ancient **cultures**. Evaluation of ecofacts helps explain the environment that people lived in.

These kinds of information help scientists reconstruct the life of ancient people.



Pottery

Vocabulary

Archaeology: The study of past human lives and cultures by the recovery and examination of remaining evidence such as graves, buildings, tools, crafts, and other artifacts. In some cases, archaeologists also study fossil remains of animals.

Culture: A particular society at a particular time and place. "Culture" can also refer to all the knowledge and values shared by a society.

Excavate: To remove earth to expose different layers of sediment and the objects and specimens in the sediment.

Excavation: The systematic removal and recording of prehistoric or historic artifacts, features, and associated materials from the ground. Excavation may involve a wide variety of techniques ranging from the use of backhoes to dig trenches to the use of small, specialized picks, brushes, and trowels to clean around small artifacts.

Artifact: Any object made, modified, or used by humans. This term usually applies to a portable item like a tool, rather than an immobile item like a house.

Classification: A systematic arrangement in groups or categories according to some established criteria.

Catalog: An organized list describing the contents of a particular collection of items. Many catalogs include descriptive comments and illustrations.

Data: Information, especially information or numbers arranged for analysis.

Interpretation: A means of communicating ideas and feelings to help people understand and appreciate the world and their role within it.

Sunshine State Standards Activity Correlations

Science

Processes that Shape the Earth

Standard 2: The student understands the need for protection of the natural systems on Earth. (SC.D.2.2)

SC.D.2.2.1 knows that recycling and reducing the use of natural resources improve and protect the quality of life.

How Living Things Interact with Their Environment

Standard 1: The student understands the competitive, interdependent, cyclic nature of living things in the environment. (SC.G.1.2)

SC.G.1.2.1 knows ways that plants, animals, and protists interact.
SC.G.1.2.2 knows that living things compete in a climatic region with other living things and that structural adaptations make them fit for an environment.
SC.G.1.2.3 knows that green plants use carbon dioxide, water, and sunlight energy to turn minerals and nutrients into food for growth, maintenance, and reproduction.

The Nature of Science

Standard 1: The student uses the scientific processes and habits of mind to solve problems (SC.H.1.2)

SC.H.1.2.1 knows that it is important to keep accurate records and descriptions to provide information and clues on causes of discrepancies in repeated experiments.
SC.H.1.2.2 knows that a successful method to explore the natural world is to observe and record, and then analyze and communicate the results.
SC.H.1.2.3 knows that to work collaboratively, all team members should be free to reach, explain, and justify their own individual conclusions.
SC.H.1.2.4 knows that to compare and contrast observations and results is an essential skill in science.
SC.H.1.2.5 knows that a model of something is different from the real thing, but can be used to learn something about the real thing.

Standard 2: The student understands that most natural events occur in comprehensible, consistent patterns. (SC.H.2.2)

SC.H.2.2.1 knows that natural events are often predictable and logical.

Standard 3: The student understands that science, technology, and society are interwoven and interdependent. (SC.H.3.2)

SC.H.3.2.1 understands that people, alone or in groups, invent new tools to solve problems and do work that affects aspects of life outside of science.
SC.H.3.2.2 know that data are collected and interpreted in order to explain an event or concept.
SC.H.3.2.3 know that before a group of people build something or try something new, they should determine how it may affect other people.
SC.H.3.3.4 know that through the use of science processes and knowledge, people can solve problems, make decisions, and form new ideas.

Social Studies

Time, Continuity, and Change [History]

Standard 6: the student understands the history of Florida and its people. (SS.A.6.2)

SS.A.6.2.2 understands the influence of geography on the history of Florida
SS.A.6.2.4 understands the perspectives of diverse cultural, ethnic, and economic groups with regard to past and current events in Florida's history.
SS.A.6.2.5 knows how various cultures contributed to the unique social, cultural, economic, and political features of Florida.
SS.A.6.2.6 understands the cultural, social, and political features of Native American tribes in Florida's history.

People, Places, and Environments [Geography]

Standard 2: The student understands the interactions of people and the physical environment. (SS.B.2.2)

SS.B.2.2.1 understands why certain areas of the world are more densely populated than others.
SS.B.2.2.2 understands how the physical environment supports and constrains human activities.
SS.B.2.2.3 understands how human activity affects the physical environment.
SS.B.2.2.4 understands how factors such as population growth, human migration, improved methods of transportation and communication, and economic development affect the use and conservation of natural resources.

Ancient Answers Data Sheet

Ancient Answers

Team Member Names: **Artifact Box Number: _____**

Where were the artifacts found in the Apalachicola River watershed?

STOP! Before you continue with this worksheet, fill in the artifact catalog with your observations and descriptions!

From the clues that you have collected, what period do you think the artifacts are from?

What group of people do you think these artifacts are from?

How do the artifacts in your box relate to each other? Were they used together or separately?

What type of site (or sites) do you think the artifacts came from? Are the artifacts from a hunting site, a living site, a garbage heap (midden), or a village/city?

What do you think the life of the people who used these items was like? Describe a typical day in the life of this culture.

Ancient Answers Data Sheet

Artifact Catalog: Ancient Answers in the Apalachicola River watershed. List your team's artifacts in the table below. Use information from the tags and observe the artifacts to fill in the descriptions.

Artifact Number	Artifact Name	Size of Artifact	Material of Artifact (Glass, metal, ceramic, stone, fiber, etc.)	**Condition of Artifact Does the artifact show any wear?**	**Description of Artifact (Color, texture, decoration, etc.)**	**How was the artifact made or modified by humans? What tools, if any, were used to make the artifact?**	**Use of the Artifact**